

A COMPLETE SOLUTION FOR TOPOLOGY AND BEAM SECTION OPTIMIZATION

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ABSTRACT –

In the latest release of BETA Suite, more optimization capabilities have been introduced which facilitate the concept design through the product development process.

Topology optimization is now available in EPILYSIS. Topology optimization is an ideal approach for the early stages of the design process as it can give the first ideas for the product design. With this addition in EPILYSIS, topology optimization problems can be set-up, run and evaluated seamlessly in a unique software suite.

New and former functionality collection is used for the automated definition of beam section optimization problems on large models. Using this process, simplified models consisted of beams and panels can be examined at no time using the NASTRAN SOL 200 optimizer. The resulted optimum values are applied on the detailed shell model for verification as the Morphing Tool facilitates the shape change of the detailed model. Two case studies are demonstrate the above topics.